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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,608	12/28/2005	Thomas Tiller	5776	9165
26/36 7590 02/05/2010 SHOEMAKER AND MATTARE, LTD 10 POST OFFICE ROAD - SUITE 100 SILVER SPRING, MD 20910				
EXAMINER				
ALEXANDER, LYLE				
ART UNIT		PAPER NUMBER		
1797				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/560,608

Applicant(s)

TILLER ET AL.

Examiner

LYLE A. ALEXANDER

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18, 21-23, 25-30, 32 and 34-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18, 21-23, 25-30, 32 and 34-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18,21-23, 25-30,32,34-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims require the marker concentration at less than 50 ppm but greater than a factor of 3 in the unmarked material. It is not clear what happens if the concentration of the marker in the material does not fall within these criteria. For example, what happens if the unmarked material has a concentration of the marker in excess of 16.67 ppm, then the marker would have to be applied in a concentration in excess of 50 ppm. Clarification could be achieved by stating the selected marker has to meet the criteria of being less than 16.67 ppm in the unmarked material. Similarly, claims 21-22 require the marker to have a concentration of less than a factor of 5 and 8 which corresponds to less than 10 and 6.67 ppm respectively to satisfy these claimed conditions.

Claim 24 is not clear what is intended by "standard sea water." Clarification could be achieved by deleting "standard."

Claims 42-43 are not clear what is intended by "field audit analysis." For the purposes this phrase will be interpreted as "authentication."

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 18,21-23, 25-30,32,34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (USP 5,849,590).

Anderson et al. teach a method of tagging a material using cations of the rare elements that include the claimed cations nickel, cobalt, lithium, copper, cesium, etc. Column 3 lines 4-7 teach the concentration of the tag is from 1-100,000 ppm and column 6 lines 20-21 teach the tag in concentration range of 1-100 ppm which encompasses the claimed range of "below 50 ppm." Column 3 lines 23+ teach the tagging agents are added to the material in the form of a solution. Column 1 lines 58-66 teach sea water is a good composition to be used as a taggant. Anderson teach in column 4 lines 35-59 the tagging materials can be carbon-13, fluorine-19, oxygen-18, oxygen-19, ammonium bromide and iron-57. Column 5 lines 51-60 teach the tag can be identified using MS, NMR or GC which have been read on the claimed methods of analysis. Columns 7 lines 59-61 teach "... the rare earth elements in the tagging agents are either not normally detectable at all in the composition being tagged or are detectable at extremely low levels" which has been read on the claimed "... by at least a factor of ..." (e.g. if the naturally occurring concentration of the tag in the material is undetectable, then the tag in the taught concentration range of 1-100 ppm would meet the instant claims).

Anderson is silent to tagging alcoholic beverages and perfumes.

It is well settled the simple substitution of one known element for another to obtain predictable results is within the skill of the art. Anderson teaches a well known method for the determination of the origin of a product. It is desirable to determine the origin or authenticity of other liquids that are susceptible to adulteration, such as alcoholic beverages and perfumes. It would have been within the skill of the art to use a

known method of tagging, such as that taught by Anderson, to tag other materials, such as alcoholic beverages or perfumes, to achieve the well known and expected results of determining the origin or authenticity of the material.

Response to Arguments

1. Applicant's arguments filed 10/8/09 have been fully considered but they are not persuasive.
2. Applicants state Anderson does not teach tagging the claimed alcoholic beverages or perfumes. In light of these amendments, the Office has changed the rejections to 35 USC 103 over Anderson and maintains it would have been within the skill of the art to use the well know tagging method of Anderson with other fluids, such as alcoholic beverages or perfumes to achieve the well known and expected results of tagging.
3. Applicants state Anderson does not teach the claimed "ion selected from the ions contained in standard sea water". Applicants' disclosure on page 7 of their original disclosure that sea water contains many ions, such as carbon, chlorine, fluorine, oxygen, sodium, magnesium sulfur, calcium and bromine. Anderson teach in column 4 lines 35-59 the tagging materials can be carbon-13, fluorine-19, oxygen-18, oxygen-19, ammonium bromide and iron-57. These taught tagging substances are found in seawater and have been properly read on the instant claims.
4. Applicants state Anderson does not teach "wherein the concentration level of said at least one ion ... by at least a factor of 3 ...". Anderson teaches the claimed concentration range of less than 50 ppm and would inherently meet this limitation

because no concentration ranges are provided. For the sake of argument, even if new language were crafted to overcome the 35 USC 112 second paragraph issues above and more clearly claim the "factor of 3", it would have been within the skill of the art as optimization of a result effective variable (In re Boesch 205 USPQ 215).

5. Applicants state Anderson teaches tagging to determine the origin of the sample and does not teach the claimed "identifying the authenticity". These remarks are only commensurate in scope with independent claims 30 and 37 and there dependent claims. With respect to these claims, the Office maintains that it is notoriously well known in the art that determination of the origin of a product is how authenticity is determined. If the product is not from the expected origin, then the product is counterfeit. Additionally, the Office has cited Empedocles(US 2004/0026684) to establish that it is notoriously well known in the art to correlate the origin of a material with the materials authenticity. Specifically, Empedocles teaches in paragraph[0196] the point of origin of the product is used to distinguish if the product is counterfeit.

6. The remainder of Applicants remarks reiterate their position that Anderson fails to teach the claimed ions. This issues has been addressed above by noting column 4 lines 35-43 of Anderson that teaches using ions that are commonly found in seawater.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Empedocles teaches in paragraph[0196] the point of origin of the product is used to distinguish if the product is counterfeit.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYLE A. ALEXANDER whose telephone number is (571)272-1254. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lyle A Alexander/
Primary Examiner, Art Unit 1797